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# A REVISION OF THE SOUTH AMERICAN PARADOXOSO-MATIDAE IN THE MUSEO CIVICO DI STORIA NATURALE DI GENOVA

(Diplopoda, Polydesmida) \*

During a stay of about six weeks at the Museo Civico di Storia Naturale di Genova in the spring of 1964, I had the opportunity to study the *Paradoxosomatidae* in the collection of that Museum. The present paper is a report on the South American material. Papers treating the material from Burma, Sumatra, New Guinea and Africa will follow in due course.

Not all the types supposed to be in Genoa could be located. Those of the Balzan collection, i.e. Strongylosoma montanum Silvestri, 1895, S. balzanii Silv., 1895, S. sanctum Silv., 1895, and S. derelictum Silv., 1895, could not be studied. In the old files and the loan register of the Genoa Museum evidence was found that these types were sent out on loan to Silvestri some sixty years ago and were never returned. Probably, therefore, this material is still in the Silvestri collection at Portici.\*\*

On the other hand, cotypes of some other species turned up quite unexpectedly. In all, material of the following species was examined:

Strongylosoma camerani Silv., 1895 Strongylosoma pseudomorphum Silv., 1895 Strongylosoma paraguayense Silv., 1895 Mestosoma bicolor Silv., 1898 Promestosoma boggianii Silv., 1898

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<sup>\*\*</sup> See also the note at the end of this paper.

Grateful acknowledgment is made to Prof. Dr. Enrico Tortonese, Director of the Genoa Museum, and particularly to Dr. Delfa Guiglia, First Curator of that Museum, for providing ample facilities for my work on the precious collection under their care.

In a recent publication (JEEKEL, 1963) I gave a synopsis of the South American paradoxosomatid genera, and a taxonomic analysis and synopsis of the species of the genus *Mestosoma* Silvestri, 1897. As regards the generic status of the species treated here below, the reader is referred to that paper.

## Mestosoma camerani (Silvestri)

1895 Strongylosoma Camerani Silvestri, Boll. Mus. Zool. Anat. comp. Torino 10 (203): 6, fig. 8.

#### MATERIAL.

The Genoa Museum has a male and a female of this species, which may be regarded as cotypes. The female specimen, however, apparently does not belong to *camerani* because the colour pattern does not agree with the description by SILVESTRI. It is not conspecific with the male specimen, and, in fact, seems to be related to *Mestosoma pseudomorphum* (Silv.).

The male specimen also differs in certain important points from SILVESTRI'S description of *camerani*. Nevertheless it is described here under that name, in anticipation of the re-examination of the male specimen on which the description was based mainly, and which is supposedly in the Turin Museum.

Chaco, A. Borelli leg., 1 5 cotype, (1 2 cotype).

## DESCRIPTION.

Colour. - Head castaneous; the antennae paler brown, but the 6th antennomere distally and the 7th proximally infuscate. Collum castaneous, with a rather narrow flavous median band which is somewhat constricted halfway. Somites castaneous, with a similar flavous median band, which is distinctly interrupted in the stricture and just in front of the posterior margin of the somites. The band is parallel-sided and has a width equal to about one quarter of the width of the metasomites. Legs castaneous. Anal somite castaneous with a flavous band running to the end of the epiproct.

Width. - 1.7 mm.

Head and antennae. - Labrum tridentate: the emargination moderately wide and moderately deep. Clypeus moderately convex, rather weakly impressed towards the labrum. Lateral border practically straight, a weak notch near the labrum. Headplate smooth, shiny, a bit rugulose only in the clypeal area. Pubescence moderate to sparse up to the upper level of the antennal sockets. Vertex hairless (?). Antennal sockets separated by about one and one third times the diameter of a socket, or by almost four fifths of the 2nd antennomere. Postantennal groove wide and rather deep; the wall in front rather weakly prominent. Vertex rather weakly convex; the sulcus rather weakly impressed, running downward to just above the upper level of the antennal sockets. Antennae short, the basal antennomeres slender, the 5th and 6th antennomeres thick: width of the 6th antennomere about four fifths of its length. Length of antennomeres: 2 = 3 > 4 =5 > 6; the 6th eight ninths of the length of the 2nd. Pubescence moderate in the proximal antennomeres to rather dense in the distal ones.

Collum. - A little narrower than the head, about rectangular in dorsal outline. Anterior border weakly convex, slightly more strongly rounded towards the sides, more weakly rounded again along the sides. Posterior border widely emarginate in the middle, widely rounded laterally. Sides rather narrowly and symmetrically rounded. The marginal rim fine and narrow, fading away towards the middle of the anterior border. Surface of collum smooth and shiny, with some hairs. Transverse convexity weak in the middle, much stronger towards the sides. The lateral margins not visible from above.

Somites. - Constriction moderate. Prosomites somewhat dulled by a fine cellular structure. Stricture of moderate width, distinctly marked off from the prosomites, dorsally faintly striate, laterally smooth. Metatergites smooth and shiny, with some sparse hairs. Transverse furrow present from the 5th to the 17th somite, situated conspicuously more near the posterior border of the tergite than usually is the case. Furrow weakly impressed, remaining separated from the dorsal delimitation of the lateral keels by a distance equal about to two times the dorsoventral width of a poriferous keel. Sides somewhat granulate in the 2nd to 4th somites, smooth in the remaining somites. Pleural keels represented by curved ridges with concavity upwards, dorsally

demarcated by a furrow which is visible up to the 16th somite. All pleural keels caudally rounded.

Lateral keels. - (fig. 1) Weakly developed. The 2nd somite scarcely wider than the collum. The keels represented by narrow and low ridges sloping in frontal direction, anteriorly rather conspicuously produced forward; posteriorly scarcely below the level of the keels of the 3rd somite. The posterior edge almost obsolete: the keels not visible from above. The 3rd somite scarcely wider than the 2nd, and as wide as the 4th. The keels of the 3rd somite much wider dorsoventrally than those of the 2nd. They are dorsally demarcated by a curved furrow, with concavity upwards, but ventrally weakly defined; in dorsal aspect the posterior edge is obsolete. Keels of the 4th somite similar to those of the 3rd, but a little more prominent. Keels of the 5th and subsequent somites weakly prominent, dorsally well demarcated, the dorsal delimitation in lateral aspect slightly convex in the poriferous keels, slightly concave in the poreless keels. Ventral demarcation distinct in the posterior three quarters of the keels, rounded, particularly in the poriferous keels. In dorsal aspect the keels are at first caudally rounded, obtusely angular from the 9th somite onwards, about right-angled in the 17th somite, and acutely angular in the 18th and 19th somites; in the latter two somites the caudal edges are very slightly produced. Pores lateral, in a small but distinct oval excavation.

Sternites and legs. - Sternites of middle somites as long as wide. Cross impressions with the transverse furrow distinct, but the longitudinal impression broad and shallow. No sternal cones. Pubescence moderate. Sternites of the 4th, 7th and 8th somites without particulars. Sternite of the 5th somite somewhat inflated between the anterior legs. At the anterior margin a pair of contiguous semicircular processes directed cephalad and a little ventrad, obliquely conical in lateral aspect, without pubescence anteriorly, but rather densely setiferous ventrally. Transverse furrow and the part of the sternite between the posterior legs normal. Sternite of the 6th somite deeply excavated, the anterior portion slightly raised, the posterior part level with the ventral surface of the metasomite; no furrows. Legs (fig. 2-3) rather short and strongly incrassate except the two last pairs. Length of podomeres: 3 > 2 = 6 > 4 = 5; the 6th podomere about two thirds of the length of the 3rd. Ventral femoral tubercles well developed in the legs of the 5th and 6th somites, weakly indicated in the legs of the 7th, 8th and 9th somites. Brushes well developed and thick in most legs, thinning out only slightly, and absent in the last two pairs. Pubescence of the ventral side of the podomeres otherwise rather dense to moderate, the hairs short; dorsal pubescence distinct only in the tarsi.

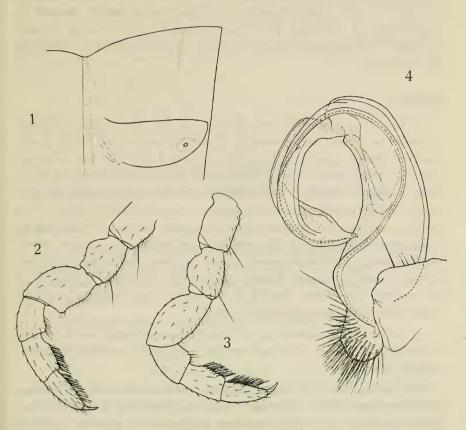


Fig. 1-4. Mestosoma camerani (Silvestri), & cotype. - 1: left side of the 10th somite, lateral aspect. 2: first leg of the 6th somite. 3: second leg of the 7th somite. 4: right gonopod, medio-anterior aspect (coxal horn broken off).

Anal somite. - Epiproct of moderate length, rather thick, ventrally a little concave. The sides practically straight, rather strongly convergent, the lateral setiferous tubercles weakly defined. The end straight and rather narrowly truncate, without terminal knobs. Paraprocts smooth; the setiferous tubercles obsolete; the marginal rims of moderate width and height. Hypoproct triangular, the sides faintly

rounded, the posterior edge somewhat obtuse-angled. Setiferous tubercles weakly developed, not produced.

Gonopods. - (fig. 4) Femur broadest at the base, gradually narrowing distally. Tibiotarsus comparatively narrow, acuminate towards the distal end, the base distinctly constricted. Solenomerite without an abrupt bend at the base. The whole acropodite curved so as to form an almost complete circle, but the end of the tibiotarsus does not reach the prefemur.

#### REMARKS.

The male described here differs from the description given by SILVESTRI in colour, in the sternite of the 5th somite and in the gonopods. SILVESTRI described the yellow median band with the following words: « media parte antica et postica post sulcum macula singula flava, parva, subovali ornatis ». This implies that the median band in each somite is interrupted from the stricture to the transverse furrow. The present male has the median band interrupted in the stricture and at the posterior margin of the tergites. Furthermore, SILVESTRI states that the sternite of the 5th somite lacks a process; the present male has a pair of small processes. Finally, according to SILVESTRI's drawing of the gonopod, the femur should be somewhat more elongate, and the whole telopodite somewhat less curved.

As the two specimens in the Genoa Museum turned out to belong to two species already, one may wonder if SILVESTRI actually described a third species.

The female in the Genoa Museum has the colour of *Mestosoma* pseudomorphum (Silv.) described hereafter, with the flavous median band interrupted from the transverse furrow to the caudal margin of the metatergites. Morphologically this specimen also largely agrees with pseudomorphum, and has, for instance, the same rather characteristic pleural keels of that species. It is, however, much smaller: 2.6 mm width, against 3.8 mm.

In my key to the species of the genus *Mestosoma* Silvestri (JEEKEL, 1963, p. 39) *M. camerani* as described above runs by way of the numbers 1, 27, 36, 38, 39 and 40 to *M. pseudomorphum* (Silv.) sensu CARL, *M. vittatum* (Att.) and *M. montanum* (Silv.). All these species, however, have entirely different gonopods and a different colour pattern. *M.* 

pseudomorphum sensu CARL, moreover, has a single small sternal knob in the 5th somite.

The present species may come nearest to *M. kalliston* (Attems, 1898) from Rio Grande do Sul, with which it agrees in the presence of femoral tubercles in a number of postgonopodial legs, in colour, in size, etc. In the gonopods too there is much similarity, in particular in the basally widened femur. However, according to ATTEMS *kalliston* lacks sternal processes completely. Moreover, the tibiotarsus in *kalliston* seems somewhat differently shaped.

In connection with *kalliston* it may be remarked that the gonopod drawing given by ATTEMS in 1937 (p. 193, fig. 244) does not present the characteristics of the drawing published in 1898.

# Mestosoma pseudomorphum (Silvestri)

1895 Strongylosoma pseudomorphum Silvestri, Boll. Mus. Zool. Anat. comp. Torino 10 (203): 6, fig. 9.

### MATERIAL.

The male specimen of this species to be designated as the holotype is presumably in the Turin Museum. The single female specimen in the Genoa Museum, obviously a cotype, I have designated and labelled preliminarily as paratype.

Paraguay centrale, A. Borelli leg., 1♀ paratype.

#### DESCRIPTION.

Colour. - Dark brown, with a purplish tinge. The lower part of the head, the venter, sternites and legs slightly paler. Collum with a flavous spot in the shape of a triangle which is narrowly constricted halfway, pointing cephalad but reaching neither the anterior nor the posterior margin. Somites with a rounded flavous median spot on the prosomites and a similar spot on the metatergites in front of the transverse furrow; the width equal to about one sixth of the width of the metasomites. Anal somite with a middorsal flavous band running to the end of the epiproct.

Width. - 3.8 mm.

Head and antennae. - Labrum scarcely emarginate, tridentate. Clypeus moderately convex, weakly impressed towards the labrum. Lateral border widely rounded, a distinct notch above the labrum. Headplate smooth and rather shiny, rather weakly setiferous in the clypeus to sparsely setiferous in the frontal region; vertex hairless. Antennal sockets separated by about one and one third times the diameter of a socket, or by about three quarters of the length of the 2nd antennomere. Postantennal groove widely and rather deeply impressed, the wall in front moderately prominent. Vertex moderately convex, the sulcus rather weakly impressed, running downward to about the upper level of the sockets. Antennae of moderate length, moderately stout and moderately clavate. Length of antennomeres: 2 = 3 = 5 > 4 > 6, the 6th antennomere about three quarters of the length of the 2nd. Pubescence moderate in the proximal antennomeres to dense in the distal ones.

Collum. - About as wide as the head, subtrapezoidal in dorsal outline. Anterior border straight in the middle, widely rounded laterally and straight again along the sides. Posterior border weakly emarginate, laterally widely rounded and straight along the sides. Lateral border asymmetrically rounded, the rounding rather wide, but becoming narrower caudally. Marginal rim rather thin, but distinctly demarcated, almost fading away in the middle of the anterior border. Surface of collum smooth and rather shiny, hairless. Transverse convexity rather weak in the middle, a little stronger towards the sides; the lateral margins of the collum are visible from above.

Somites. - Constriction rather weak. Prosomites rather dull by a fine cellular structure. Stricture of moderate width, smooth, distinctly demarcated from the prosomites. Metatergite smooth and shiny, hairless. Transverse furrow present from the 5th to the 17th somite, weakly indicated in the 18th. The furrow well impressed, without sculpture, remaining separated from the dorsal delimitation of the keels by about one to two times the dorsoventral width of a poriferous keel. Sides densely granular in the 2nd to 5th somites, granular immediately below the lateral keels only in the 6th to 8th somites, smooth in the other somites. Pleural keels represented by a rather broad inflated area dorsally sharply demarcated by a curved furrow with concavity upwards. The swelling gradually disappears in the second half of the body, but the furrow remains visible up to the 17th somite.

Lateral keels. - Weakly developed. 2nd somite about as wide as the collum. The keels represented by simple low ridges, obliquely sloping downward in the anterior direction. The 3rd somite scarcely

wider than the 2nd, and a little narrower than the 4th. Keels of the 3rd somite on a somewhat higher level than those of the 2nd somite, scarcely prominent, only dorsally demarcated by a curved furrow, concavity upwards. Keels of the 4th somite similar to those of the 3rd, scarcely more prominent. Keels of the 5th and subsequent somites distinctly more prominent than those of the preceding somites, dorsally as well as ventrally distinctly demarcated. In dorsal aspect they are posteriorly rounded in most somites, to become obtusely angular in the 16th and 17th somites, and somewhat acute in the 18th and 19th somites. In the 17th to 19th somites the caudal edges are projecting a little behind the border of the somites. Pores lateral in a small rounded excavation.

Sternites and legs. - Sternites of middle somites as long as wide. Cross impressions distinct, the longitudinal furrow somewhat weaker than the transverse furrow. Sternites with weakly indicated sternal cones, especially at the base of the posterior legs of each somite. Pubescence rather dense, the hairs of moderate length. Legs of moderate length, rather stout. Length of podomeres: 3 > 6 = 2 > 5 = 4; the 6th podomere over three quarters of the length of the 3rd. Pubescence ventrally rather dense in all podomeres, dorsally distinctly present only in the tarsi.

An alsomite. - Epiproct rather short, moderately thick; the ventral side scarcely concave. Sides rather strongly convergent, straight; the lateral setiferous tubercles small but distinct. The end rather narrowly and straight truncate, without terminal knobs. Paraprocts smooth; the setiferous tubercles obsolete. The marginal rims rather narrow, moderately high. Hypoproct triangular, the sides weakly convex, the posterior edges obtusely rounded. Setae not on tubercles.

## REMARKS.

In 1902, Carl gave a supplementary description of this species based on material from Rio Cindo, Paraguay. According to him the male has a small process on the sternite of the 5th somite, not mentioned and possibly overlooked by Silvestri. The gonopod drawing by Carl differs slightly from the one given by Silvestri, in particular in the outline of the posterior side of the femur.

« Habrodesmus » tricuspis Verhoeff, 1938, also may be identical with pseudomorphum. It was based on material from Lapango, between

the Rio Paraguay and Rio Pilcomayo, 100 km WSW from Asunción. The gonopods of Verhoeff's species are largely similar to the drawing of Silvestri. However, Verhoeff states that the male has femoral tubercles in the legs of the 6th somite, and rudimentary femoral tubercles in the legs of the 5th somite. Moreover, the posterior legs of the 6th somite have the coxa provided with a ventrodistal elongate protuberance. These characters were not mentioned either by Silvestri or by Carl. On the other hand Verhoeff did not mention a process on the sternite of the 5th somite.

It is clear, that the material of SILVESTRI, CARL and VERHOEFF should be re-examined before a conclusion on its conspecificity can be drawn. That a very similar species occurs in the same region with pseudomorphum was observed under M. camerani.

Although the examination of the single female of *pseudomorphum* in the Genoa Museum naturally could not throw any new light on the more important characters of this species, publication of a more lengthy description may be justified as a preliminary supplement to Silvestri's embryonic diagnosis.

# Mestosoma paraguayense (Silvestri)

1895 Strongylosoma paraguayense Silvestri, Boll. Mus. Zool. Anat. comp. Torino 10 (203): 6, fig. 11.

1956 Catharosoma paraguayense; Kraus, Senck. biol. 37: 407, pl. 50, fig. 3-6.

#### MATERIAL.

In the Genoa Museum is a single male specimen of this species which obviously belongs to the type series. Silvestri described the species from «Paraguay: centrale, S. Pedro, Assuncion», so that apparently material from more than one locality was involved. The specimen to be designated as holotype is presumably in the Turin Museum. As long as the type has not been selected it is impossible to say whether or not the presently described male is conspecific with *paraguayense*. There seems to be little doubt, however, that this will be the case eventually.

Asunción, A. Borelli leg., 1 & cotype.

#### DESCRIPTION.

Colour. - Pale brown all over. Width. - 2.3 mm.

Head and antennae. - Labrum tridentate, the emargination deep and moderately wide. Clypeus rather weakly convex, weakly impressed towards the labrum. Lateral border widely convex, weakly emarginate near the labrum. Headplate punctulate in the clypeal area, otherwise smooth and shiny. Pubescence moderate to sparse up to the frontal region, the vertex with one pair of hairs. Antennal sockets separated by one and a half times the diameter of a socket or by almost four fifths of the length of the 2nd antennomere. Postantennal groove rather deep, moderately wide. The wall in front rather weakly prominent. Vertex moderately convex; the sulcus rather weakly impressed, running downward to just below the upper level of the sockets. Antennae of moderate length, rather stout, distinctly clavate. Length of antennomeres: 2 = 3 = 4 > 5 > 6; the 6th antennomere somewhat more than four fifths of the length of the 2nd. Pubescence moderate in the proximal antennomeres to rather dense in the distal ones.

Collum. - A little wider than the head, subtrapezoidal in dorsal outline. Anterior border straight, laterally widely rounded and almost straight again along the lateral sides. Posterior border faintly concave, widely rounded laterally, straight along the sides. Sides rather widely and asymetrically rounded: the rounding becoming a little narrower caudad. Surface of collum smooth, shiny and hairless. Transverse convexity even. Marginal rim narrow, fading away towards the middle of the anterior border.

Somites. - Constriction very weak. Prosomites somewhat dulled by a fine cellular structure. Stricture of moderate width, distinctly demarcated from the prosomite, without any sculpture. Metatergites smooth, shiny, hairless, somewhat wrinkled near the posterior margin. No transverse furrow. Sides generally smooth; only those of the 2nd to 4th somites rugulose, but without distinct granulation. Pleural keels represented by distinct ridges, which are dorsally demarcated by a furrow. Those of the 2nd and 3rd somites caudally produced into a slightly acute-angled lappet projecting behind the posterior margin of the somites. In the 4th and subsequent somites the lappet becomes more and more acute and spiniform. The ridges disappear gradually, but the furrows and the spinelike projections at the posterior margin remain visible up to the 16th somite.

Lateral keels. - Weakly developed to absent. 2nd somite slightly narrower than the collum and slightly wider than the 3rd somite.

Keels of the 2nd somite below the level of those of the 3rd, represented by a narrow ridge curving upwards anteriorly. In dorsal aspect the keels are widely rounded laterally and produced posteriorly into a rounded, about right-angled edge which projects slightly caudad of the posterior border of the somite. Keels of the 3rd somite similar to those of the 2nd somite, but less prominent and caudally rounded and not produced. In the 4th somite the keels are represented only by a weak swelling which is dorsally demarcated by a furrow with concavity upwards. From the 5th somite onwards lateral keels are totally absent.

Sternites and legs. - Sternites of middle somites narrow: amply one and a half times longer than broad. Cross impressions well developed, both furrows of equal depth. Sternal cones, four on each sternite, present in all postgonopodial somites. Cones very strongly developed, especially those at the base of the posterior legs of each somite, and directed straight caudad. Sternite of the 4th somite somewhat swollen, closely set with short hairs and bearing a pair of penicillate brushes. Sternite of the 5th somite with a process between the anterior legs which is two times longer than broad at the base, directed strongly cephalad, and which projects distinctly in front of the margin of the sternite. Sides of the process only slightly convergent, the end narrowly rounded, the posterior surface densely clothed with fine, short hairs, the lateral margins with a dense fringe of longer hairs. Behind the process a transverse furrow. Posterior portion of the sternite strongly inflated and densely set with short hairs, caudally with a pair of diverging penicillate brushes, latero-anteriorly on each side a longitudinal row of long hairs. Entire sternite of the 6th somite strongly inflated, without furrows. Between the anterior legs a short and thick conical, medially incised protuberance directed cephalad a little, but not projecting in front of the sternite. The process bears no hairs. Between the posterior legs a brush of hairs projecting caudad. Sternite of the 7th somite with a low transverse ridge running from the anterior end of the pleural keel to the lateral margin of the gonopod aperture. Sternite of the 8th somite without special modifications. Legs (fig. 5-6) of moderate length, rather stout; the anterior legs somewhat incrassate, especially the prefemur; postgonopodial legs gradually more elongate towards the posterior half of the body. Coxae of the 2nd pair of legs with a digitiform process curving mesad. All podomeres of the pregonopodial legs densely setiferous, in particular on the ventral side. From the 7th

somite onwards the tibiae are ventrally inflated and are distally densely scopulate, and the tarsi have dense brushes. Only the last two pairs of legs lack the tibial inflation and the brushes.

Anal somite. - Epiproct elongate and rather narrow, dorsoventrally rather thick. Sides weakly convergent, scarcely concave. Lateral

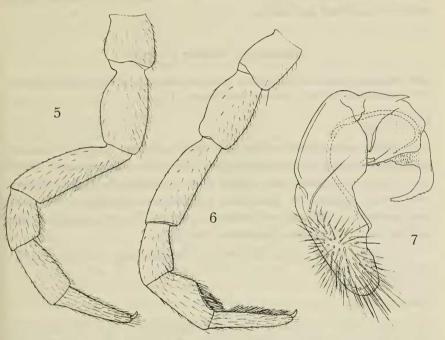


Fig. 5-7. Mestosoma paraguayense (Silvestri), & cotype. - 5: first leg of the 6th somite. 6: second leg of the 7th somite. 7: telopodite of right gonopod, posterior aspect.

tubercles very weak. End narrowly truncate, weakly excised in the middle, but without distinct terminal knobs. Ventral side of epiproct convex. Paraprocts smooth; the setiferous tubercles scarcely prominent. Rims moderately wide and moderately high. Hypoproct rather long, triangular, the sides converging at an acute angle, almost straight. Setiferous tubercles moderately developed, not projecting. The end of the hypoproct narrowly rounded, not uncate.

Gonopods. - (fig. 7) Kraus (l.c.) has given drawings of various aspects of the gonopods which are in perfect agreement with the present male. The only, although scarcely significant, difference

seems to be that the uncate process of the lamina medialis of the tibiotarsus is finely serrate in the present specimen.

#### REMARKS.

For the synonymy of this species I may refer to Kraus's paper cited above. The present male cotype is clearly conspecific with the material described by Kraus.

#### Mestosoma bicolor Silvestri

1898 Mestosoma bicolor Silvestri, Ann. Mus. civ. Stor. nat. Genová 38: 672, fig. 6. 1937 Habrodesmus bicolor; Attems, Tierreich 68: 192.

#### MATERIAL.

The Genoa Museum has one male and three females which are obviously cotypes. The male is apparently the specimen upon which the original description was largely based. It lacks the right gonopod, which was depicted by Silvestri; probably a microscope slide with this gonopod is still in the collection at Portici. The male now has been labelled as holotype, the females as paratypes.

Puerto 14 de Mayo, X.1896, G. Boggiani leg.,  $\circlearrowleft$  holotype, 3  $\circlearrowleft$  paratypes.

#### DESCRIPTION.

Colour. - Reddish brown to castaneous. The dorsum rather dark, with a faint and narrow paler median stripe not mentioned by SILVESTRI. The lower part of the head, the antennae, the sides of the somites below the lateral keels, the venter, sternites and legs pale reddish brown. Presently at least, the difference between the darker dorsum and the paler sides is much less significant than SILVESTRI's statements might suggest.

Width. - ♂: 1.8 mm. ♀♀: 3.0 mm, 2.9 mm, and 2.8 mm.

Head and antennae. - Labrum rather widely and weakly emarginate, tridentate. Clypeus moderately convex, rather weakly impressed towards the labrum. The lateral borders widely rounded, widely emarginate above the labrum. Headplate somewhat punctulate in the clypeus, otherwise smooth, shiny. Pubescence moderate in the clypeal area to sparse on the lower part of the vertex; middle of vertex

with one pair of hairs. Antennal sockets separated by one and one third times the diameter of a socket, or by two thirds of the length of the 2nd antennomere. Postantennal groove moderately deep and rather wide; the wall in front weakly prominent. Vertex moderately convex, the sulcus moderately impressed, running downward to just between the antennal sockets. Antennae of moderate length, moderately stout, somewhat clavate. Pubescence moderate in the proximal antennomeres to rather dense in the distal ones. Length of antennomeres: 2 = 3 > 4 = 5 = 6; the 6th antennomere about eight ninths of the length of the 2nd.

Collum. - Scarcely narrower than the head, reniform in dorsal outline. Anterior border widely rounded, gradually more strongly rounded towards the lateral sides. Posterior border widely emarginate, widely convex laterally. Lateral border rather widely and symmetrically rounded. Marginal rim laterally thin, fading away along the anterior border. Surface of collum smooth, shiny, with some sparse hairs, rather weakly transversely convex in the middle, a little more strongly so towards the sides. Lateral borders visible from above.

Somites. - Constriction moderate. Prosomites dulled by a fine cellular structure. Stricture moderately wide, distinctly demarcated from the prosomites, smooth or with a faint longitudinal striation. Metatergites shiny, smooth; immediately behind the stricture a transverse row of two plus two sometimes setiferous pits. Transverse furrow well impressed, present from the 5th to the 17th somite, remaining separated from the dorsal delimitation of the lateral keels by about one and a half times or two times the dorso-ventral width of a poriferous keel. Sides smooth, in most somites somewhat rugulose-subgranulose near the posterior border. Sides of the 2nd to 5th or 6th somites granular. Pleural keels represented by well developed ridges in the anterior somites. Those on the 2nd and 3rd somites are caudally obtusely rounded, those on the 4th to 7th somites are caudally produced into a small triangular lappet, which especially in the 6th and 7th somites projects behind the border of the somites. In the 8th somite the pleural keels are produced into an obtusely angular lappet which does not project behind the margin. In the subsequent somites the pleural keels become gradually less distinct, but the furrow which demarcates them dorsally remains visible up to about the 15th somite.

Lateral keels. - Very weakly developed to almost absent. The 2nd somite a little narrower than the collum. The keels represented

by narrow ridges, sloping downward a little in frontal direction. The posterior part also distinctly below the level of the keels of the 3rd somite. The 3rd somite scarcely narrower than the 2nd, and as wide as the 4th. The keels of the 3rd somite dorsoventrally wider than those of the 2nd somite, represented by two curved furrows, with concavity upwards, which meet near the posterior margin. Keels of the 4th somite similar to those of the 3rd. Keels of the 5th and subsequent somites weakly prominent, those of the poreless somites even hardly prominent. Dorsal delimitation of the keels almost straight in the poriferous, widely concave in the poreless somites. Lower demarcating furrow running upwards in an angle of about 45°. In dorsal aspect all keels are posteriorly rounded and lack a posterior edge. Pores lateral in a very weak excavation.

Sternites and legs. - Sternites of middle somites about as long as wide. Cross impressions well developed, the transverse furrow a little deeper than the longitudinal one. No sternal cones. Pubescence moderate, the hairs moderately long. Sternites of the 4th, 7th and 8th somites without particulars. Sternite of the 5th somite between the anterior legs somewhat swollen, and without longitudinal furrow there, but without process. The part between the posterior legs with a rather deep longitudinal impression. The transverse furrow deep. Sternite of the 6th somite deeply excavated and scarcely raised above the ventral surface of the metasomite between the posterior legs. No longitudinal furrow, the transverse furrow distinct. Legs (fig. 8) of moderate length, the basal podomeres incrassate, especially in the legs of the anterior half of the body. Legs of the posterior part of the body a little more elongate. A distinct ventral femoral tubercle present only in the posterior legs of the 6th somite. Length of podomeres: 3 > 6 > 2 > 5 > 4; the 6th podomere about two thirds of the length of the 3rd. Brushes not particularly dense, but present in all legs, though very weak in the two ultimate pairs. Pubescence of legs ventrally otherwise moderate, dorsally more dense only in the tibiae and tarsi.

Anal somite. - Epiproct of moderate length, moderately thick, the ventral side scarcely concave. Sides practically straight, moderately convergent. Lateral setiferous tubercles obsolete. The end rather narrowly and straight truncate, without terminal knobs. Paraprocts smooth, the setiferous tubercles weakly prominent. The marginal rims moderately wide, rather high. Hypoproct triangular, the sides practically straight, the posterior edge obtuse-angled. Setiferous tubercles moderately developed, not projecting.

Gonopods. - (fig. 9) Coxa rather large, narrowing a little distally, rather sparsely setiferous laterally and anteriorly. Coxal horn without particulars. Prefemur ovoid, normally setiferous. Femur well developed, rather strongly widening distad, laterally distinctly demarcated from the prefemur and the tibiotarsus, the distal end curving rather

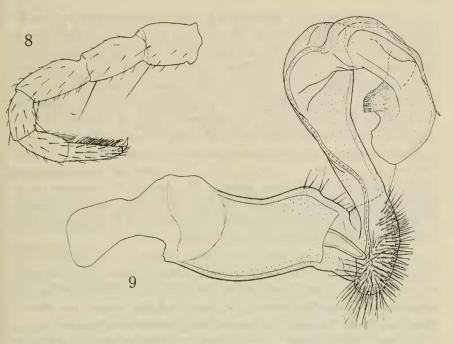


Fig. 8-9. Mestosoma bicolor Silvestri, & holotype. - 8: second leg of the 7th somite.
9: left gonopod, medial aspect.

abruptly into a medio-caudal direction. Tibiotarsus well developed, strongly widening distad, curving proximad and finally cephalad a little. The apical portion emarginate. Solenomerite of moderate length, with a characteristic abrupt bend at the base.

Female. - Besides the usual sexual differences, the females are distinguished by the following characters. Somites somewhat less constricted. Stricture rather narrow, with fine striation. Pleural keels as in the male, but the posterior edges of those of the 4th to 8th somites less developed and not projecting behind the caudal margin. In some of the poriferous keels the furrows are converging caudally, without

meeting each other, however. Sternites of middle somites one and one third times broader than long. Pubescence of the legs as in the males, but, of course, no brushes. The 6th podomere about five sixths of the length of the 3rd.

#### Remarks.

In my cited key to the species of *Mestosoma* this species runs by way of the numbers 1, 27, 36, 38, 39 (if a pale medio-dorsal band is observed), 42, 44, 47 to *M. salvadorii* (Silv.), *M. semirugosum* (Poc.), *M. camerani* (Silv.) and *M. kalliston* (Att.), or via 38, 50 (if a pale band is not distinct), 53, 54, 57, 59, 61 to *M. yamango* Kraus, *M. truncatum* (Schub.), *M. femorale* (Schub.), *M. hylaeicum* Jeekel, *M. contumum* (Chamb.) sensu Kraus, and *M. andresense* Kraus. A number of these species are considerably larger than *M. bicolor*, namely *salvadorii*, *semirugosum*, *yamango*, *truncatum* and *hylaeicum*, the males of which measure between 2.3 mm and 3.8 mm in width. *M. camerani* and *kalliston* are clearly distinct in their colour pattern. *M. femorale*, *M. contumum* sensu Kraus and *M. andresense* differ at least in having femoral tubercles in the legs of the 5th and 6th somites. Moreover, all these species differ more or less conspicuously in the gonopods.

Obviously, the species most closely related to *M. bicolor* is *M. femorale* (Schubart, 1943) from Salobra, Mato Grosso. The gonopods of the two species are quite similar, and the main differences are the more strongly caudally produced prefemur and the absence of a distinct emargination in the apical lamina of the tibiotarsus in *femorale*.

Also closely related to *M. bicolor* appears to be *M. contumum* (Chamberlin, 1955) sensu Kraus, 1956, from Perù, Contumazà and Cajamarca. But the gonopods of this species differ in the conformation of the distal end of the femur and in the smaller width of the tibiotarsal apex.

In 1963 I gave a classificatory outline of the species of *Mestosoma*, in which I referred *M. bicolor* and *M. contumum* sensu Kraus to group V, 2a. In view of the present evidence, however, it seems better now to bring these two species into group V, 3a, together with *M. derelictum* (Silv.), *M. femorale* (Schub.) and *M. hylaeicum* Jeekel.

The female paratypes of *M. bicolor* appear to be unusually large in comparison with the male holotype. If they might prove to be not conspecific with the male, they must belong to an extremely closely related species.

# Promestosoma boggianii Silvestri

1898 Promestosoma Boggianii Silvestri, Ann. Mus. civ. Stor. nat. Genova 38: 673, fig. 7-10.

1937 Catharosoma boggianii; Attems, Tierreich 68: 202 (excluding fig. 253; see JEEKEL, 1963, p. 20).

#### MATERIAL.

The Genoa Museum has two male specimens, obviously cotypes. One of these lacks the left gonopod as well as the other parts illustrated by Silvestri. Microscope slides of the missing parts may be still in the collection at Portici. This male is clearly the one upon which the original description was largely based, and consequently I have labelled it as holotype. The other male has been designated as paratype now.

Puerto 14 de Mayo, X.1896, G. Boggiani leg., & holotype, & paratype.

## DESCRIPTION.

Colour. - Reddish brown, the antennae and legs a little paler. The pale reddish dorsal bands alluded to by Silvestri apparently have disappeared. Instead, there is a faintly indicated narrow darker middorsal line.

Width. - Holotype: 1.5 mm; paratype: 1.4 mm. The width of 1.8 mm given by Silvestri is obviously a misprint.

Head and antennae. - Labrum weakly and rather widely emarginate, tridentate. Clypeus moderately convex, weakly impressed towards the labrum. Lateral border faintly convex, slightly emarginate near the labrum. Headplate shiny, rather coarsely punctate in the clypeal area, otherwise smooth. Pubescence rather dense in the clypeus to rather sparse on the lower portion of the vertex; middle part of vertex with two plus two setae. Some of the hairs are conspicuously long. Antennal sockets separated by one and a half times the diameter of a socket, or by slightly less than two thirds of the 2nd antennomere. Postantennal groove rather deep and rather wide, the wall in front scarcely prominent. Vertex rather weakly convex; the sulcus moderately impressed, running downward to just above the upper level of the antennal sockets. Antennae of moderate length and width, distinctly clavate. Length of antennomeres: 3 = 4 > 2 = 6 > 5, the differences in length very small. Pubescence moderate in the proximal antennomeres to rather dense in the distal ones.

Collum. - About as wide as the head, elongate subrectangular in dorsal outline. Anterior border straight, gradually becoming widely rounded towards the lateral sides. Posterior border faintly concave, practically straight, widely rounded towards the lateral sides. Lateral borders widely rounded, but asymmetrical: the rounding becoming narrower caudally. Marginal rim narrow, fading away towards the middle of the anterior border. Surface of collum smooth, shiny, with some sparse setae arranged in three transverse rows. Transverse convexity weak in the middle, much stronger towards the sides. The lateral margins not visible from above.

Somites. - Constriction moderate. Prosomites with cellular structure, but rather shiny. Stricture rather broad, distinctly demarcated from the prosomites, without sculpture. Metatergites with a weak cellular structure, somewhat more shiny than the prosomites, smooth. Immediately behind the stricture a transverse row of four minute granules, which are setiferous in a number of anterior and posterior somites. Transverse furrow present from the 5th to the 17th somite, weakly indicated also in the 18th somite. Furrow well impressed, without sculpture, remaining separated from the dorsal delimitation of the lateral keels by about the dorsoventral width of a poriferous keel or slightly more. Sides smooth, finely rugulose to subgranulose along the posterior margin. Sides of the 2nd to 4th somites more distinctly granular. Pleural keels represented by well developed, curved ridges, concavity upwards, especially well developed in the 2nd, 6th and 7th somites. In the 6th and 7th somites they are caudally obtuse-angled, but not produced. In the other somites they are simply rounded posteriorly. In the second half of the body the pleural keels are disappearing gradually; the furrow which demarcates them dorsally remains visible up to the 17th somite.

Lateral keels. - (fig. 10) Weakly developed. The 2nd somite slightly narrower than the collum. The keels simply ridge-like, below the level of those of the 3rd somite, and sloping downward a little in frontal direction. The 3rd somite scarcely narrower than the 2nd, and as wide as the 4th. Keels of the 3rd and 4th somites much broader dorsoventrally than those of the 2nd somite, ventrally and dorsally demarcated by curved furrows, with concavity upwards. In dorsal aspect the keels of the 3rd and 4th somites are widely rounded and lack distinct posterior edges. Keels of the 5th and subsequent somites rather prominent, dorsally and ventrally distinctly demarcated. In

dorsal aspect the sides are widely rounded, the posterior edges are weakly prominent, obtuse to right-angled up to the 17th somite, acute-angled in the 18th and 19th somites, and projecting very slightly there. In the anterior somites the pores are situated in an oval excavation; from the 9th (holotype) or the 12th (paratype) somite the excavation is more elongate and open at the caudal end of the keels.

Sternites and legs. - Sternite of middle somites slightly broader than long. Cross impressions well developed, the transverse furrow a little deeper than the longitudinal one. No distinct sternal cones, but the margin of the coxal sockets is slightly produced into a rounded tubercle. Pubescence rather dense in the anterior somites to moderate in the posterior somites. Sternite of the 4th somite without process, but densely setiferous. Sternite of the 5th somite without a longitudinal or transverse furrow. The process arising from the middle of the sternite, and not located between the anterior legs as usual. The process itself rather short, somewhat widening distad, the end distinctly bilobate, directed downwards, rather densely set with long setae. Sternite of the 6th somite with a shorter, widely rounded process between the anterior legs, directed ventrad; strongly setiferous. Between the posterior legs the sternite is somewhat inflated and lacks a longitudinal furrow. The transverse furrow between the anterior and posterior parts of the sternite of the 6th somite is well impressed. Sternites of the 7th and 8th somites without particulars. Legs of moderate length, not particularly slender; those of the posterior part of the body somewhat more elongate. Pubescence of legs ventrally rather dense, dorsally moderate to rather dense in the three distal podomeres. Tibial and tarsal brushes well developed and present in all legs, even in the two last pairs although rather thin there. Legs of the 7th somite (fig. 11) conspicuously incrassate in comparison with the preceding and following legs, especially the femur. The femur moreover provided with a well developed ventral tubercle.

Anal somite. - Epiproct moderately long, moderately thick. The ventral side a little concave. Sides rather strongly convergent, weakly concave. The end rather narrowly truncate, without terminal knobs. Lateral setiferous tubercles small but distinct. Paraprocts smooth; the setiferous tubercles minute; the marginal rims moderately wide, but rather high. Hypoproct rather large, triangular. The sides weakly convex, the posterior edge obtuse-angled. Setiferous tubercles small, not projecting.

Gonopods. - (fig. 12) Coxa rather large, a little narrowing distad, laterally and anteriorly rather densely setiferous. Coxal horn thick, the end strongly attenuate. Prefemur ovoid; around the opening of the spermal channel an area densely set with minute hairs. Femur

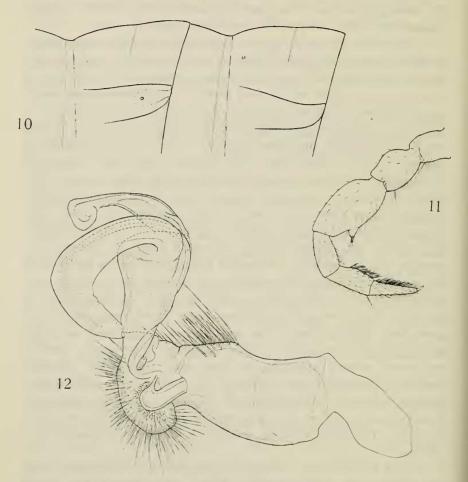


Fig. 10-12. Promestosoma boggianii Silvestri, 3 holotype. - 10: left side of the 10th and 11th somites, lateral aspect. 11: second leg of the 7th somite. 12: right gonopod, medial aspect.

rather short, rather strongly widening distad, laterally distinctly demarcated from the prefemur and the tibiotarsus. Tibiotarsus consisting of a large solenophorous part curving in caudal and mesal direction,

and finally in a proximal and anterior direction. From the latero-anterior side of the base arises an elongate laminate process curving somewhat mesad and caudad. Spermal channel running along the medio-anterior side of the femur towards the base of the solenomerite. Solenomerite long, flagelliform, arising from the medio-anterior end of the femur, almost completely sheathed by the solenophore.

## Remarks.

The re-examination of this species, which is the type and only known species of *Promestosoma* Silvestri, 1898, gives me the opportunity to correct an error which occurred in my paper of 1963.

In connection with the original description of *boggianii*, SILVESTRI gave a gonopod drawing which allegedly showed a gonopod from the anterior side. Basing my opinion on this statement I assumed that SILVESTRI illustrated the right gonopod and, consequently, located the base of the secondary process of the tibiotarsus mesad of the solenophore.

Actually, however, SILVESTRI depicted the left gonopod of his species from a latero-posterior aspect, and the secondary process arises from the lateral side of the distal end of the femur.

Misled by the incorrect statement by SILVESTRI I synonymized *Habrodesmella* Kraus, 1956, with *Promestosoma* Silv. It is clear now that these two genera have nothing to do with each other.

Promestosoma now appears to come nearest to Montesecaria Kraus, 1956, based on Catharosoma nitidum Kraus, 1954, from Perù. Still, it seems better not to unite the two genera, as the two species seem rather disjunct. Montesecaria nitida has the legs of the male unmodified, and its somites completely lack lateral keels. Perhaps annectant forms will be found in the future, but at present the two genera seem sufficiently different to be kept separate.

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# NOTE ON THE LOCATION OF SOME CHILOPOD AND DIPLOPOD TYPES OF POCOCK AND SILVESTRI

In the course of my studies at the Genoa Museum I found that, contrary to expectation, the type material of a number of species could not be located. This concerned some *Paradoxosomatidae* of immediate importance to me, but after some further investigation it appeared that also material of other Diplopod groups was involved. As the total of species missing was considerable, and included some very important types, I went into the matter and made some further inquiries.

At the suggestion of Dr. Guiglia I went through the old correspondence between Dr. E. Silvestri and Dr. R. Gestro, formerly Vice Director of the Genoa Museum. Fortunately, this correspondence was still extant and, moreover, quite easily accessible. In addition I examined the loan registers of the Museum.

As a result it soon turned out, that indeed some sixty years ago a lot of material had been borrowed by SILVESTRI, who around that time worked on a comprehensive monograph on the Diplopoda. As the entries concerning these loans were never cancelled in the register, one may safely assume that the material was never returned. Moreover, the species which were sent out corresponded as far as could be checked exactly with those missing in the collection of the Museum.

During most of his life SILVESTRI worked at the Laboratorio di Entomologia Agraria at Portici. It is most likely, therefore, that the material he borrowed from the Genoa Museum will prove to be in the laboratory at Portici rather than anywhere else.

Since practically all the types included are in need of a revision, I have, for the benefit of those colleagues who sooner or later will face the task of tracing the material, compiled a list of the species sent out to Silvestri, extracted from the loan register.

The list contains the names of species described or recorded in the following publications:

- I-R. I. Рососк, 1893, On the *Myriopoda* of Burma. Pt. 3. Report upon the *Julidae*, *Chordeumidae* and *Polyzonidae* collected by Sig. L. Fea and Mr. E. W. Oates. Ann. Mus. civ. Stor. nat. Genova, 33: 386-406.
- II F. Silvestri, 1895, Chilopodi e Diplopodi della Papuasia. l.c., 34: 619-659.
- III F. Silvestri, 1895, I Chilopodi ed i Diplopodi di Sumatra e delle Isole Nias, Engano e Mentavei. 1.c., 34: 707-760.
- IV-F. SILVESTRI, 1895, Chilopodi e Diplopodi raccolti dal Capitano G. Bove e dal Prof. L. Balzan nell'America Meridionale. l.c., 34: 765-783.
- V-R. I. Рососк, 1895, The *Myriopoda* of Burma. Pt. IV. Report upon the *Polydesmoidea* collected by Sig. L. Fea, Mr. E. W. Oates and others. l.c., 34: 787-834.

#### 24.I.1902 - loan Nr. 6

Orthomorpha miranda Pocock - Palon (V: 812)

Heterochordeuma doriae Pocock - Carin (I: 387)

Platyrhachus tristis Silvestri - Nias, G. Sitoli (III: 731)

Platyrhachus permirabilis Silvestri - Sumatra, Ajer Mantcior (III: 730)

Doratonotus beccarii Silvestri - Sumatra, M. Singalang (III: 748)

Zephroniodesmus sumatranus (Pocock, 1894) - Sumatra, M. Singalang (probably cotype received from Pocock)

Heterochordeuma platydesmoide Silvestri - Sumatra, Si Rambe (III: 727) Cambala modiglianii Silvestri - Sumatra, Si Rambe (III: 749)

8.IX.1902 - loan Nr. 35

Siphonophora feae Pocock - Mooleyit, 2 ex. (I: 386)

Cambala feae Pocock - Moulmein, 4 ex. (I: 390)

Julus birmanicus Pocock - Carin, 1 ex. (I: 392)

Cryptodesmoides feae Pocock - Taikkyi, 1 ex. (V: 790)

Trichopeltis feae Pocock - Carin, 1 ex. (V:793)

Eudasypeltis pusillus Pocock - Mooleyit, 2 ex. (V: 796)

Anoplodesmus anthracinus Pocock - Rangoon, 2 ex. (V: 798)

Strongylosoma ocellatum Pocock - Taikkyi, 4 ex. (V: 802)

Tetracentrosternus subspinosus Pocock - Puepoli, 1 ex. (V: 803)

Trogodesmus bicolor Pocock - Yado, Bia po, 2 ex. (V: 804)

Orthomorpha minlana Pocock - Minhla, 2 ex. (V: 816)

Prionopeltis taurinus Pocock - Taikkyi, 3 ex. (V: 830)

? ? (no name cited) - Carin, 1 ex.

Sphaeropoeus hercules Brandt - Kaju Tanam, 1 ex., Si Rambe, 4 ex.,

Sphaeropoeus hercules Brandt - Kaju Tanam, 1 ex., Si Rambe, 4 ex., M. Singalang, 5 ex., Ajer Mantcior, 6 ex. (III: 722)

Zephronia nigriceps Pocock - Buitenzorg, 7 ex. (probably cotypes received

from Pocock)

Zephronia nigriceps Pocock - Mentavei, Si Oban, 8 ex. (III: 723)
Zephronia humilis Silvestri - Engano, Bua Bua, 5 ex. (III: 723)
Siphonophora modiglianii Silvestri - Si Rambe, 6 ex. (III: 725)
Siphonotus sumatranus Silvestri - Si Rambe, 2 ex. (III: 725)
Centrodesmus discrepans Silvestri - Si Rambe, 1 ex. (III: 745)
Cryptodesmus simillimus Silvestri - Pea Ragia, 2 ex. (III: 747)
Cryptodesmus modestus Silvestri - Moroka, 1 ex. (II: 647)
Siphonophora scolopacina Silvestri - Moroka, 1 ex. (II: 637)
Siphonophora longirostris Silvestri - Moroka, 1 ex. (II: 636)
Siphonophora vinosa Silvestri - Moroka, 1 ex. (II: 636)
Zephronia albertisii Silvestri - Somerset, 5 ex. (II: 635)

## 10.IX.1902 - loan Nr. 36

Orphnaeus polypodus Silvestri - Asunción, 1 ex. (IV: 768)
Geophilus paraguayensis Silvestri - Rio Apa, 5 ex. (IV: 768)
Geophilus armatus Silvestri - Argentina, Resistencia, 2 ex. (IV: 769)
Odontopeltis balzanii Silvestri - Missiones Mosetenes, 1 ex. (IV: 769)
Strongylosoma montanum Silvestri - Coroico, 2 ex. (IV: 770)
Strongylosoma balzanii Silvestri - Coroico, 11 ex. (IV: 771)
Strongylosoma sanctum Silvestri - Incarnación, 2 ex. (IV: 771)
Strongylosoma derelictum Silvestri - Missiones Mosetenes, 1 ex. (IV: 772)
Iulidesmus typicus Silvestri - Bolivia, 1 ex. (IV: 773)
Alloporus americanus Silvestri - S. Ignazio, 4 ex. (IV: 780)

3.XI.1902 - loan Nr. 44

Pseudonannolene bovei Silvestri - Giabibbiri (IV: 776)

20.I.1906 - loan Nr. 4

Himantosoma porosum Pocock - Si Rambe, 1 ex. (III:719)

Of great importance, moreover, is the indication found in the correspondence between Silvestri and Gestro that the type material of *Pocockia sapiens* Silvestri (III: 728) is most probably lost. In a letter to Gestro dated 2.IX.1902, Silvestri answered to an inquiry on the whereabouts of this material, that it was not with him any more, that it was returned already several years before, and that it should be in the Genoa Museum.

As far as I could trace, this was not the case.

Finally, it may be interesting to note, that a large collection of Myriapoda from West Africa, collected by L. Fea on his last expedition, was sent to Silvestri for identification and was not returned.

Considering the above, any student of Diplopoda going to the SILVESTRI collection at Portici may expect to strike oil.

#### SUMMARY

This paper treats the Paradoxosomatidae from South America in the Genoa Museum. Type material of five species described by Silvestri has been re-examined. The five species, four belonging to *Mestosoma* Silv. and one to *Promestosoma* Silv., are redescribed and, where possible, the gonopods have been illustrated. The relationship of the species and the status of the genus *Promestosoma* are briefly discussed. The paper ends with a note on the probable location of chilopod and diplopod types generally believed to be in the Genoa Museum, but missing there now.

#### RIASSUNTO

Questo lavoro tratta i Paradoxosomatini del Sud America esistenti nel Museo di Genova. È stato riesaminato il materiale tipico di cinque specie descritte da SILVESTRI. Le cinque specie, quattro appartenenti a Mestosoma Silv. e una a Promestosoma Silv., sono ridescritte e, quando possibile, i loro gonopodi sono illustrati. Vengono brevemente discusse le relazioni delle specie e lo «status» del genere Promestosoma. Lo scritto termina con una nota intorno alla probabile ubicazione dei tipi di chilopodi e diplopodi che generalmente si ritengono trovarsi nel Museo di Genova, ma attualmente non vi esistono.